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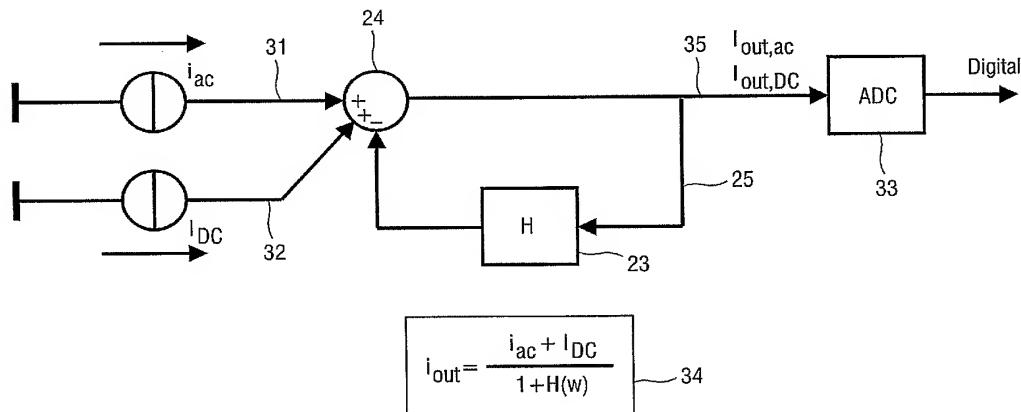
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(54) Title: INPUT SIGNAL DEPENDENT SIGNAL CONDITIONING



(57) **Abstract:** A circuit has an analog to digital converter (33) for digitally processing a sensor signal. The sensor signal has signal components representing information (31) and further signal components (32), e.g. bias current or interference. Before converting the sensor signal to the digital domain the input signal is conditioned depending on the characteristics of the input signal. Thereto the device comprises a signal conditioning circuit for receiving the sensor signal and outputting a conditioned sensor signal. The signal conditioning circuit has an analog feedback loop (25) having a loop filter (23) having a transfer function for enhancing the information signal component and reducing the further signal component. This has the advantage that the dynamic range and other requirements for the analog to digital converter are reduced. In particular the circuit is coupled to an electret microphone in a mobile telephone or hearing aid.



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